

CLAIMS

1. An image data processing apparatus for performing a predetermined signal processing on input image data and generating
5 output data for supplying to an external apparatus, the image data processing apparatus comprising:

a first processing circuit for performing a first signal processing with respect to image data so as to produce a first set of image data; and

10 a second processing circuit for performing with respect to the image data a second signal processing, which is independent from the first signal processing, so as to produce a second set of image data; wherein

the first and second processing circuits execute the first
15 and second signal processing in a parallel manner, and output the first and second sets of image data as output data.

2. The image data processing apparatus as defined in Claim 1, wherein

20 the first set of image data and the second set of image data differ from one another in at least one of bit length, pixel density, or frame rate.

3. The image data processing apparatus as defined in Claim 1, wherein

the first processing circuit comprises a first filter for attenuating a first bandwidth of the image data so as to generate a first luminance data, a gamma corrector for performing a gamma correction processing on the first luminance data, and a first

contour emphasize for performing a first contour emphasis processing with respect to the gamma-corrected data; and

the second processing circuit comprises a second filter for attenuating a second bandwidth of the image data so as to generate
5 a second luminance data, and a second contour emphasize for performing a second contour emphasis processing with respect to the second luminance data.

4. The image data processing apparatus as defined in Claim
10 3, wherein

the first processing circuit further comprises a conversion circuit for changing at least one of pixel density or frame rate of the luminance data.

15 5. The image data processing apparatus as defined in Claim 3 or Claim 4, wherein

the second processing circuit further comprises a digitizer for digitizing an output from the second contour emphasize so as to generate a digitized data.

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6. The image data processing apparatus as defined in any one of Claims 1 through 5, further comprising

a synthesizing circuit for allocating an output from the first processing circuit and an output from the second processing
25 circuit to predetermined high-order bits and predetermined low-order bits of the output data, respectively, so as to synthesize the outputs.